



# Pesticides Allowed for Use in Cannabis Production in Colorado

**Pesticide Use Criteria...**  
**And other fun issues**

# Regulatory Approach

- 2013 Governor EO: CDA directed to develop a list of pesticides that cannot be used = 11k products
- April 2014 first Rules proposed
  - Stopped within 48 hours
  - Left with label language only to regulate use



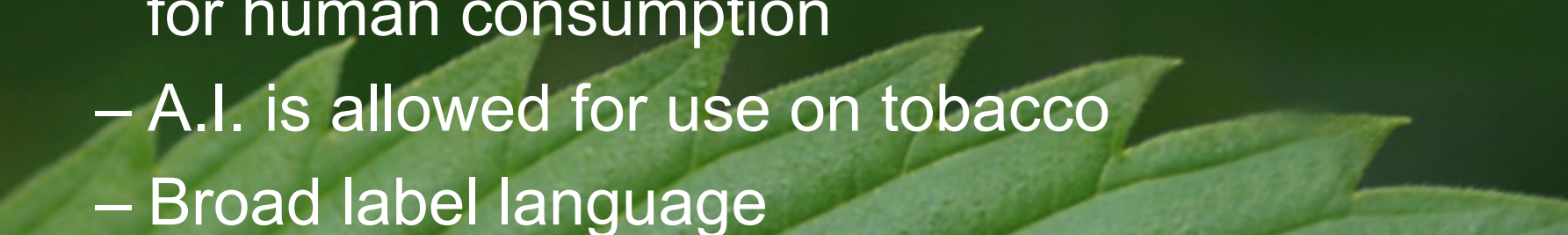
# Rule Development

- 2 years to develop – MED, MIG, Governor's office and CDA work group input throughout
- Based Rule criteria on known science and reviews we could point to
- Criteria: EPA has established what products are
  - Tolerance exempt
  - Allow for use on food crops
  - Allow for use on tobacco

# Rule Consideration

- Colorado Food and Drug Act – adulterated raw agricultural commodity
  - Presence of a pesticide that is not tolerance exempt in any amount on cannabis constitutes adulteration that renders the cannabis unsafe for human consumption under the CFDA as a matter of law
  - CDA has always recommended that based on this provision alone, any **adulterated Cannabis should be destroyed**

# Use of Pesticides in the Production of Cannabis - Rule

- Rule passed January 2017
  - Pesticides must be registered with CDA
  - Section 3 products:
    - Tolerance exempt
    - Expressly allows use on crops or plants intended for human consumption
    - A.I. is allowed for use on tobacco
    - Broad label language
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# Rule Criteria


- 25(b) products with express labeling that allows use on crops or plants intended for human consumption
- Use under a 24(c)
- Label allows use on marijuana or hemp



# Rule Criteria

- Catch all: Authority to prohibit the use of any product if CDA determines that the use could pose a significant threat to public health and safety or the environment
- List to be maintained on the CDA website
  - E-mail notification of any change to the list
  - Updated as changes occur

# Cannabis R&D Update

- For purposes of R&D
  - May use a pesticide not registered with CDA
  - Allows applicators to test unregistered pesticides or registered pesticides with unregistered uses
  - R&D MJ business license issued through MED
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# Action Levels

- 2017 CDPHE / MED – State labs established for compliance verification testing
- Test for 13 primary pesticides CDA identified initially



# “Permissible Levels of Contaminants”

Substance	Detection Limits
Abamectin (Avermectins: B1a & B1b)	< 0.07 Parts Per Million (PPM)
Azoxystrobin	< 0.02 Parts Per Million (PPM)
Bifenazate	< 0.02 Parts Per Million (PPM)
Etoxazole	< 0.01 Parts Per Million (PPM)
Imazalil	< 0.04 Parts Per Million (PPM)
Imidacloprid	< 0.02 Parts Per Million (PPM)
Malathion	< 0.05 Parts Per Million (PPM)
Myclobutanil	< 0.04 Parts Per Million (PPM)
Permethrin (mix of isomers)	< 0.04 Parts Per Million (PPM)
Spinosad (Mixture of A and D)	< 0.06 Parts Per Million (PPM)
Spiromesifen	< 0.03 Parts Per Million (PPM)
Spirotetramat	< 0.02 Parts Per Million (PPM)
Tebuconazole	< 0.01 Parts Per Million (PPM)

# Action Levels

- State lab detection limits were established based on lab capability
- Industry submits their own samples to be tested, can use the lab of their choice
- First legal challenges presenting themselves for CDA detections (ppb vs. ppm) found in compliance verification sampling

# Devices

- Peroacetic Acid Generator
- Ozonated water
- Ozone (gas) generators (most figure out to just claim to "deodorize" so are not on the list).
- "Hydrogen peroxide"/and/or some other oxidizing agents as air purifiers. (gas) UV light + catalyst + air. Many also generate some ozone.

# Devices

Note: the colored labels on the feed

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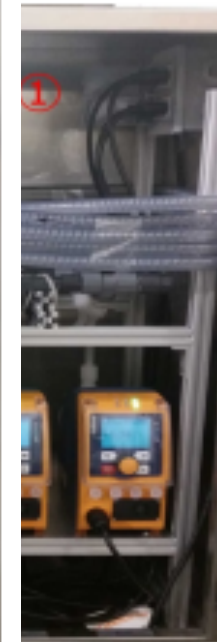


Figure 2. Location and supply pumps



ng lines and the feed chemical tanks.

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# Questions

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